WHAT IS CLAIMED IS:

1. A method for transmitting keyboard data between a computer and a wireless keyboard having a plurality of general keys and a number of function keys, comprising the steps of:

(a) generating the keyboard data in response to a key press or press release, the keyboard data including fixed data containing a leader indicating a transmission of the keyboard data, variable data, and inverted variable data, the variable data including a 1-bit special bit indicating whether a function key has been pressed, a make/brake bit indicating whether a key has been pressed, and a scan code corresponding to a pressed or press-released key; and

(b) transmitting the generated keyboard data through an air interface.

2. The method as set forth in claim 1, wherein the step (a) comprises the steps of:

(a-1) generating a first byte including the leader of fixed bits, the special bit indicating state information of the function key, and an inverted special bit in response to the key press or press release, wherein the keyboard data includes the first byte, a second byte and a third byte;

(a-2) generating the second byte including the make/brake bit indicating whether the key has been pressed,

22

and the scan code corresponding to the pressed or press-released key; and

(a-3) generating the third byte including an inverted make/brake bit and an inverted scan code.

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3. The method as set forth in claim 2, wherein the special bit contained at the step (a-1) is set if a preset function key is in a make mode, and wherein the special bit contained at the step (a-1) is cleared if the function key is

10 in a brake mode.

4. The method as set forth in claim 2, wherein the step (b) comprises the step of:

(b-1) adding a parity bit to each byte of the keyboard

15 data to be transmitted and adding a start bit and stop bit to a head and tail of each byte; and

(b-2) transmitting the keyboard data through the air interface.

20 5. The method as set forth in claim 4, wherein the step (b) is carried out by converting the keyboard data of the first to third bytes into a wireless signal in units of packets, and transmitting the wireless signal.

25 6. The method as set forth in claim 5, wherein a size of

23

each packet of the keyboard data is based on approximately 23 ms, and a time interval between packets is set to approximately 77 ms.

5   7. The method as set forth in claim 6, wherein each byte within each of the packets comprises 11 bits, a size of each of the bits being based on approximately 696.9 μs.

8. A method for receiving keyboard data between a
10   computer and a wireless keyboard having a plurality of general keys and a number of function keys, comprising the steps of:

(a) receiving and processing the keyboard data, the keyboard data including fixed data containing a leader indicating a transmission of the keyboard data, variable data,
15   and inverted variable data, the variable data including a 1-bit special bit indicating whether a function key has been pressed, a make/brake bit indicating whether a key has been pressed, and a scan code corresponding to a pressed or press-released key; and

20   (b) performing an operation corresponding to the received and processed keyboard data.

9. The method as set forth in claim 8, wherein the keyboard data comprises:

25   a first byte including the leader, the special bit and

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an inverted special bit;

a second byte including the make/brake bit and the scan code; and

a third byte including an inverted make/brake bit and an
5   inverted scan code.

10. The method as set forth in claim 9, wherein each byte of the keyboard data comprises:

a parity bit;

10   a start bit added to a head of each byte; and

a stop bit added to a tail of each byte.

11. The method as set forth in claim 10, wherein the step (a) comprises the steps of:

15   (a-1) receiving the keyboard data including the first to third bytes through an air interface;

(a-2) checking a transmission error on the basis of data of the second and third bytes;

(a-3) determining whether a key is in a make/brake mode
20   on the basis of the make/brake bit contained in the second byte;

(a-4) determining whether the key is a function key on the basis of the special bit contained in the first byte if the key is in the make mode, and setting the special bit to
25   generate a make code if the key is the function key; and

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(a-5) determining whether the key is the function key if the key is in the brake mode, and clearing the special bit to generate a brake code if the key is not the function key.

5   12. The method as set forth in claim 8, wherein the step (b) is carried out by performing a corresponding operation according to the special bit, make/brake code and scan code.

       13. The method as set forth in claim 11, wherein the
10   step (a-1) comprises the steps of:
       recovering original keyboard data from a received wireless signal;

       recognizing each of the first, second and third bytes contained in the recovered keyboard data through the start and
15   stop bits;

       determining whether the received wireless signal corresponds to the keyboard data on the basis of the leader contained in the first byte; and

       if the received wireless signal corresponds to the
20   keyboard data, receiving the keyboard data including the first to third bytes.

       14. The method as set forth in claim 11, wherein the step (a-2) comprises the steps of:
25   checking the transmission error of each byte using the

parity bit within each byte of the received keyboard data;

checking the transmission error by determining whether an inverted bit and code produced by inverting the make/brake bit and scan code contained in the second byte are the same as
5   the inverted make/brake bit and scan code contained in the third byte; and

ignoring the received keyboard data if the transmission error is detected, and performing a next operation if the transmission error is not detected.
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15. The method as set forth in claim 11, wherein the step (a-3) comprises the steps of:

determining whether the key is in the make/brake mode;

if the make/brake bit of the second byte has been set,
15   determining that the key is in the make mode; and

if the make/brake bit of the second byte has been cleared, determining that the key is in the brake mode.

16. The method as set forth in claim 11, wherein each of
20   the steps (a-4) and (a-5) comprises the steps of:

if the special bit of the first byte has been set, recognizing the key as a function key; and

if the special bit of the first byte has been cleared, recognizing the key as a general key.
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17. A method for transmitting and receiving keyboard data between a computer and a wireless keyboard having a plurality of general keys and a number of function keys, comprising the steps of:

5   generating a first byte including a start bit, a leader of fixed bits, one special bit indicating state information of a function key, an inverted special bit, a parity bit and a stop bit in response to a key press or press release;

generating a second byte including a start bit, a 10   make/brake bit indicating whether the key has been pressed, the scan code corresponding to the pressed or press-released key, a parity bit and a stop bit in response to the key press or press release;

generating a third byte including a start bit, an 15   inverted make/brake bit, an inverted scan code, a parity bit and a stop bit in response to the key press or press release;

converting the keyboard data of the first to third bytes into a wireless signal, and transmitting the wireless signal;

receiving the keyboard data including the first to third 20   bytes through an air interface;

checking a transmission error on the basis of data of the second and third bytes;

determining whether a key is in a make/brake mode on the basis of the make/brake bit contained in the second byte;

25   determining whether the key is a function key on the

28

basis of the special bit contained in the first byte if the key is in the make mode, and setting the special bit to generate a make code if the key is the function key;

determining whether the key is the function key if the key is in the brake mode, and clearing the special bit to generate a brake code if the key is not the function key; and

performing a corresponding operation according to the special bit, make/brake code and scan code.